

10/678226

10/06/2003

Serial No. NEW
BSW.007C
Preliminary Amendment dated October 6, 2003

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A composite superconducting tape comprising a multiplicity of constituent superconducting tapes stacked parallel to one another with major faces in contact, ~~and characterised in that~~ wherein at least some of the constituent superconducting tapes have widths not greater than half ~~[[the]]~~ a width of the composite ~~superconductor~~ superconducting tape and are laid edge to edge with each other, the composite superconducting tape including at least one tape bridging the stacks.

Claim 2 (Currently Amended): A composite superconducting tape as claimed in claim 1, in which all the constituent superconducting tapes have a width that is substantially a simple fraction of the width of the composite superconducting tape so that ~~[[they]]~~ the constituent superconducting tapes form two or more ~~substacks~~ stacks with aligned zones ~~between them~~ therebetween which contain no superconducting material.

Claim 3 (Currently Amended): A composite superconducting tape as claimed in claim 2, in which the ~~[[said]]~~ simple fraction is a half, so that there are two ~~sub-stacks~~ stacks.

Claim 4 (Currently Amended) A composite superconducting tape as claimed in ~~any one~~
~~of claims 1-3 comprising claim 1, wherein the~~ at least one full-width bridging tape is a
full width of the composite superconducting tape and is produced from a ~~[[of]]~~ silver or
silver alloy material bridging from tape to tape.

Claim 5 (Currently Amended): A composite superconducting tape as claimed in claim 4,
~~in which wherein there are at least two full-width metal bridging tapes are present, one~~
bridging tape at ~~[[each]]~~ one end of the ~~[[stack]]~~ stacks and a second bridging tape at
another end of the stacks.

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Claim ⁶~~7~~ (Currently Amended): A composite superconducting tape as claimed in claim
~~[[6]]~~ 5, wherein respective strengths of in which the two full-width metal tapes are ~~[[of]]~~
unequal strength.

Claim ⁷~~8~~ (Currently Amended): A composite superconducting tape as claimed in ~~any one~~
~~of claims 1-7~~ claim 1, in which the composite superconducting tape is diffusion-bonded
and all ~~[[its]]~~ elongate components extend longitudinally.

Claim ⁸~~9~~ (Currently Amended): A composite superconducting tape as claimed in ~~any one~~
~~of claims 1-8~~ claim 1, in which the constituent superconducting tapes are all powder-in-
tube superconducting tapes.

Claim ⁹~~10~~ (Canceled)

Claim ¹⁰~~11~~ (New): A composite superconducting tape constructed from a plurality of superconducting tapes each having two opposite major faces and two opposite edges extending between the major faces, the composite superconducting tape including:

a first stack having a plurality of the superconducting tapes wherein each superconducting tape in the first stack has at least one major face in contact with a major face of an adjacent superconducting tape in the first stack;

R1.126 a second stack having a plurality of superconducting tapes wherein each superconducting tape in the second stack has a least one major face in contact with a major face of an adjacent superconducting tape in the second stack, wherein at least some of the superconducting tapes have widths not greater than half a width of the composite superconducting tape; and

at least one bridging tape spanning between the first and second stacks for maintaining the first and second stacks in a substantially parallel edge-to-edge configuration.

Claim ¹¹~~12~~ (New): A composite superconducting tape as claimed in claim ¹⁰~~11~~, wherein all the superconducting tapes have a width that is substantially a simple fraction of the width of the composite superconducting tape so that the superconducting tapes form at

least the first and second stacks with aligned zones therebetween which contain no superconducting material.

Claim ¹²~~13~~ (New): A composite superconducting tape as claimed in claim ¹¹~~12~~, wherein said simple fraction is a half, so that there are two stacks.

Claim ¹³~~14~~ (New): A composite superconducting tape as claimed in claim ¹⁰~~11~~, wherein the bridging tape is a full width of the composite superconducting tape and is produced from a silver or silver alloy material.

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Claim ¹⁴~~15~~ (New): A composite superconducting tape as claimed in claim ¹³~~14~~, wherein there are at least two full-width metal bridging tapes, one bridging tape at one end of the stacks and a second bridging tape at another end of the stacks.

Claim ¹⁵~~16~~ (New): A composite superconducting tape as claimed in claim ¹⁴~~15~~, wherein respective strengths of the two full-width metal tapes are unequal.

Claim ¹⁶~~17~~ (New): A composite superconducting tape as claimed in claim ¹⁰~~11~~, wherein the composite superconducting tape is diffusion-bonded and all elongate components extend longitudinally.

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Claim 18 (New): A composite superconducting tape as claimed in claim 11¹⁰, in which the superconducting tapes are all powder-in-tube superconducting tapes.